
Intel
Developer
Forum
Spring 2002
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# Anytime and Anywhere

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Intel Developer Forum Spring 2002

# Our Challenge . . .

Make **Any Device**
**Interact** Seamlessly
With Any **Other Device**
**Anytime Anywhere** in the World

# Our Challenge . . .

Make Any Device
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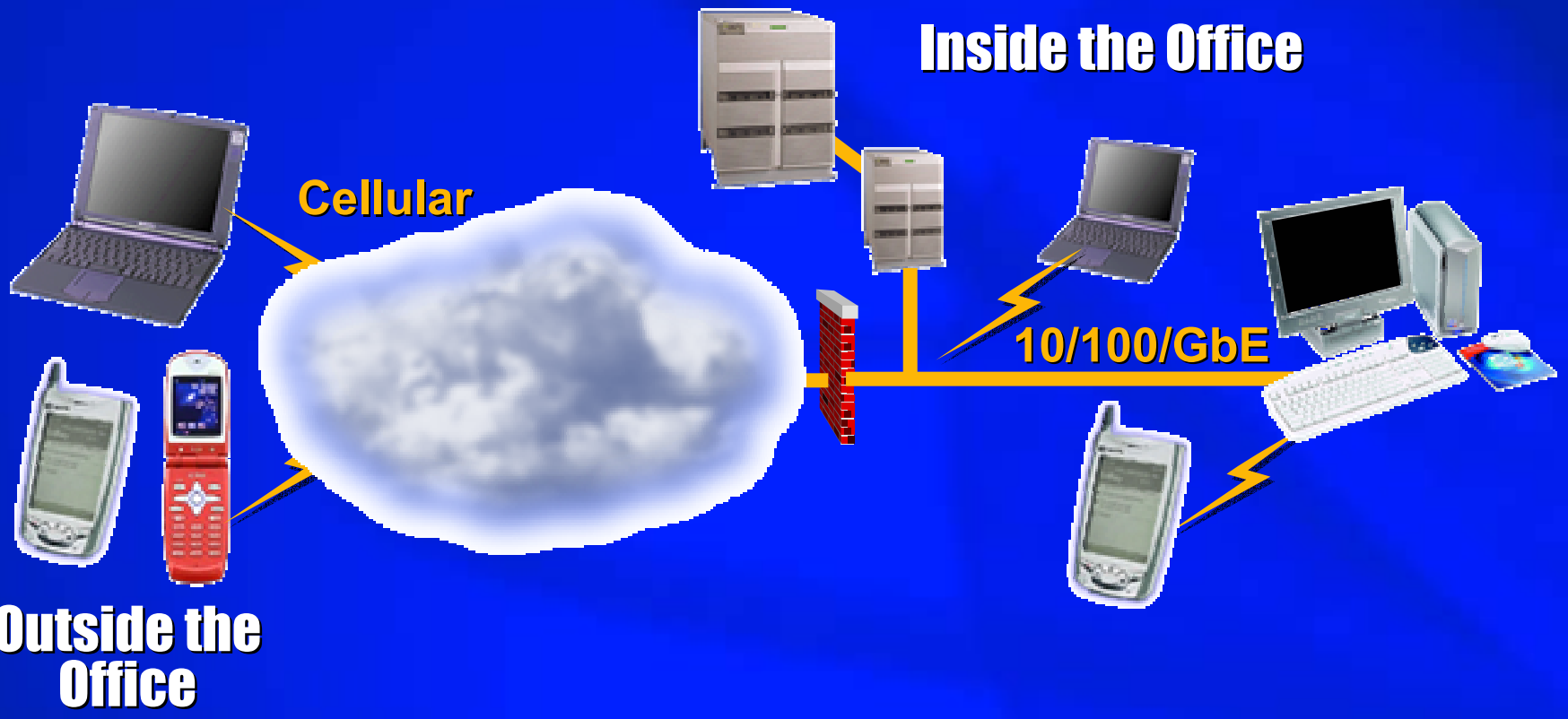
## . . .This Is Our Opportunity

# Anytime Anywhere . . . Office




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# Anytime Anywhere . . . Office



Demo

# Anytime Anywhere . . . Home

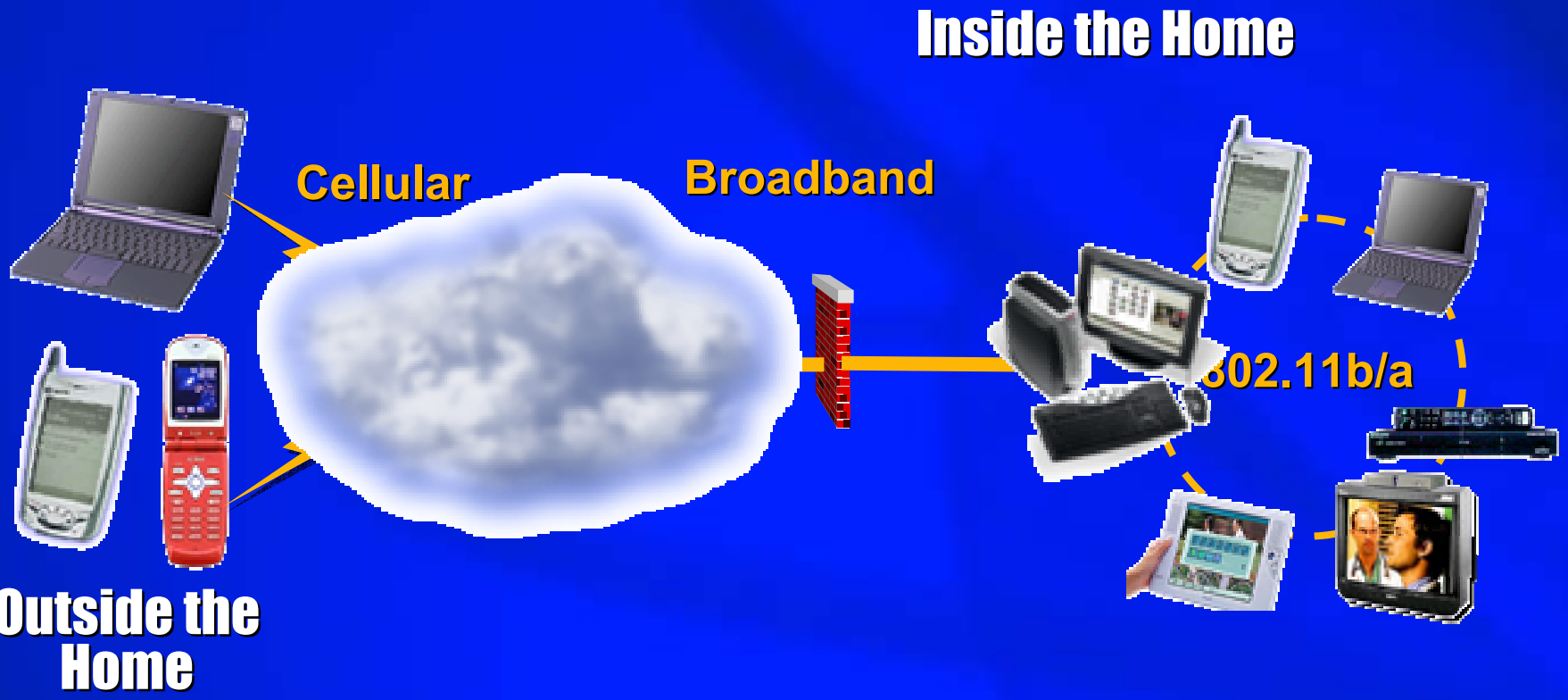
## Inside the Home




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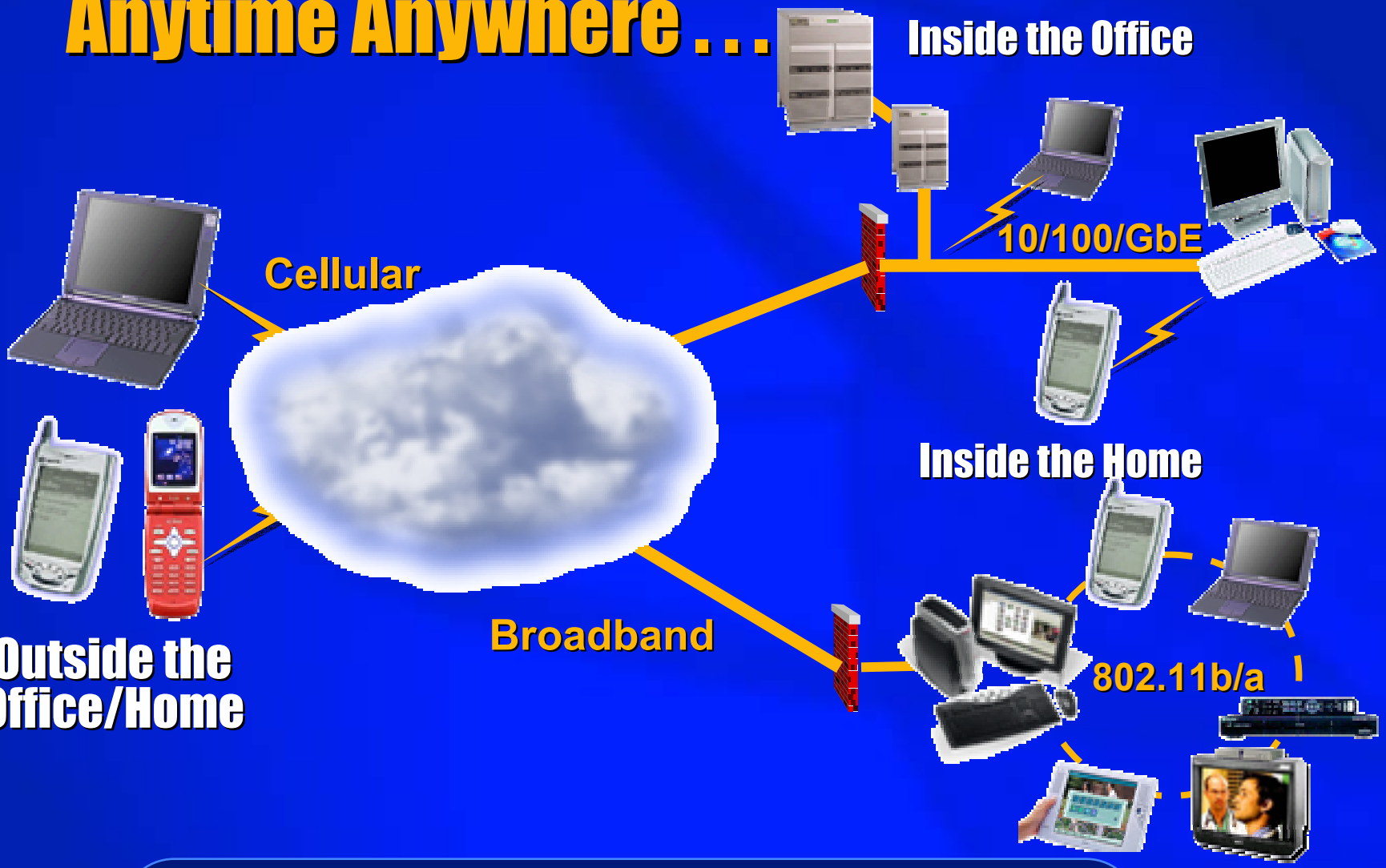
Demo

# Anytime Anywhere . . . Home




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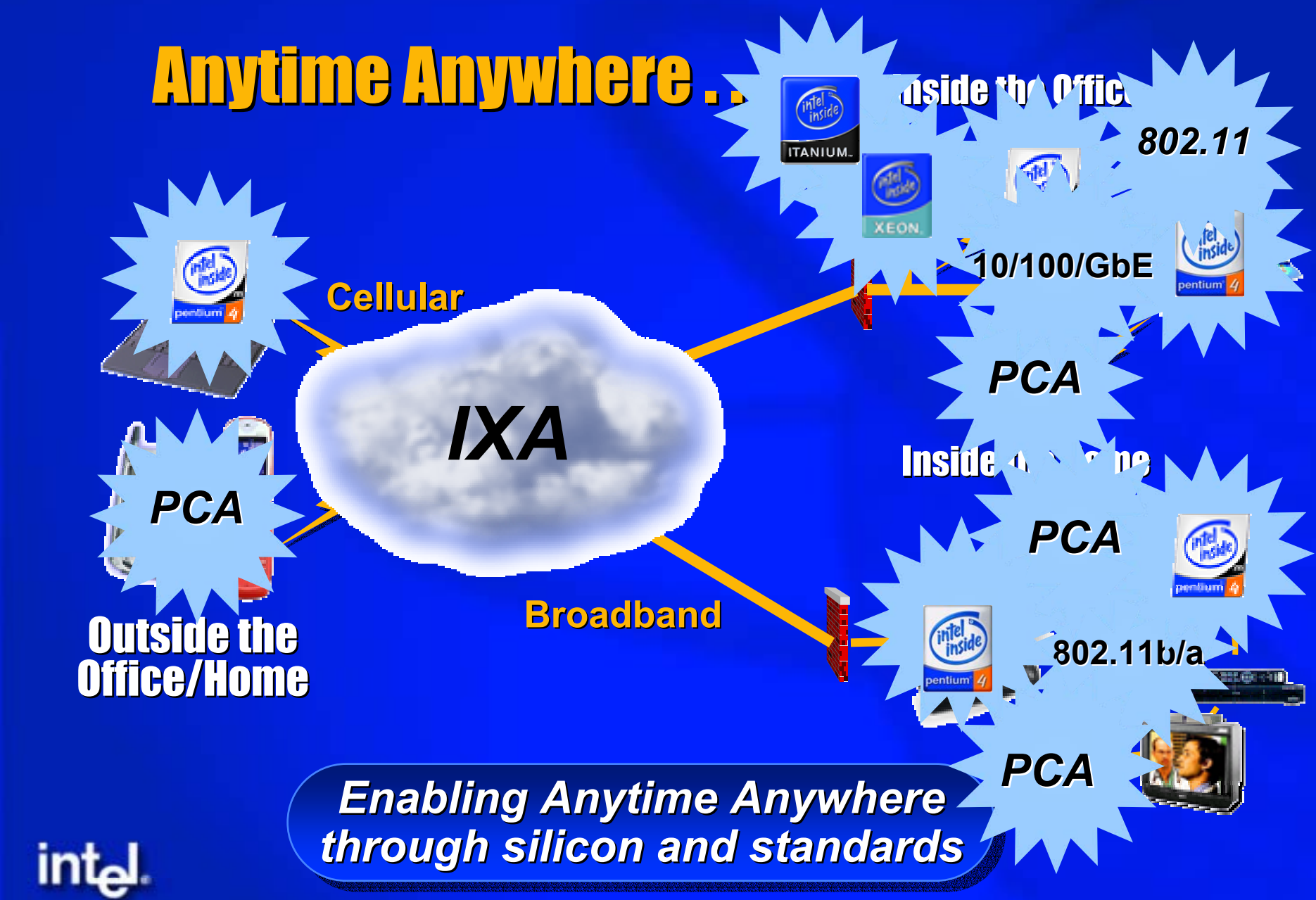
# Anytime Anywhere . . .




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*New Devices & New Services*

# Anytime Anywhere . . .




*Enabling Anytime Anywhere through silicon and standards*

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# Today's Agenda

**Desktop:**

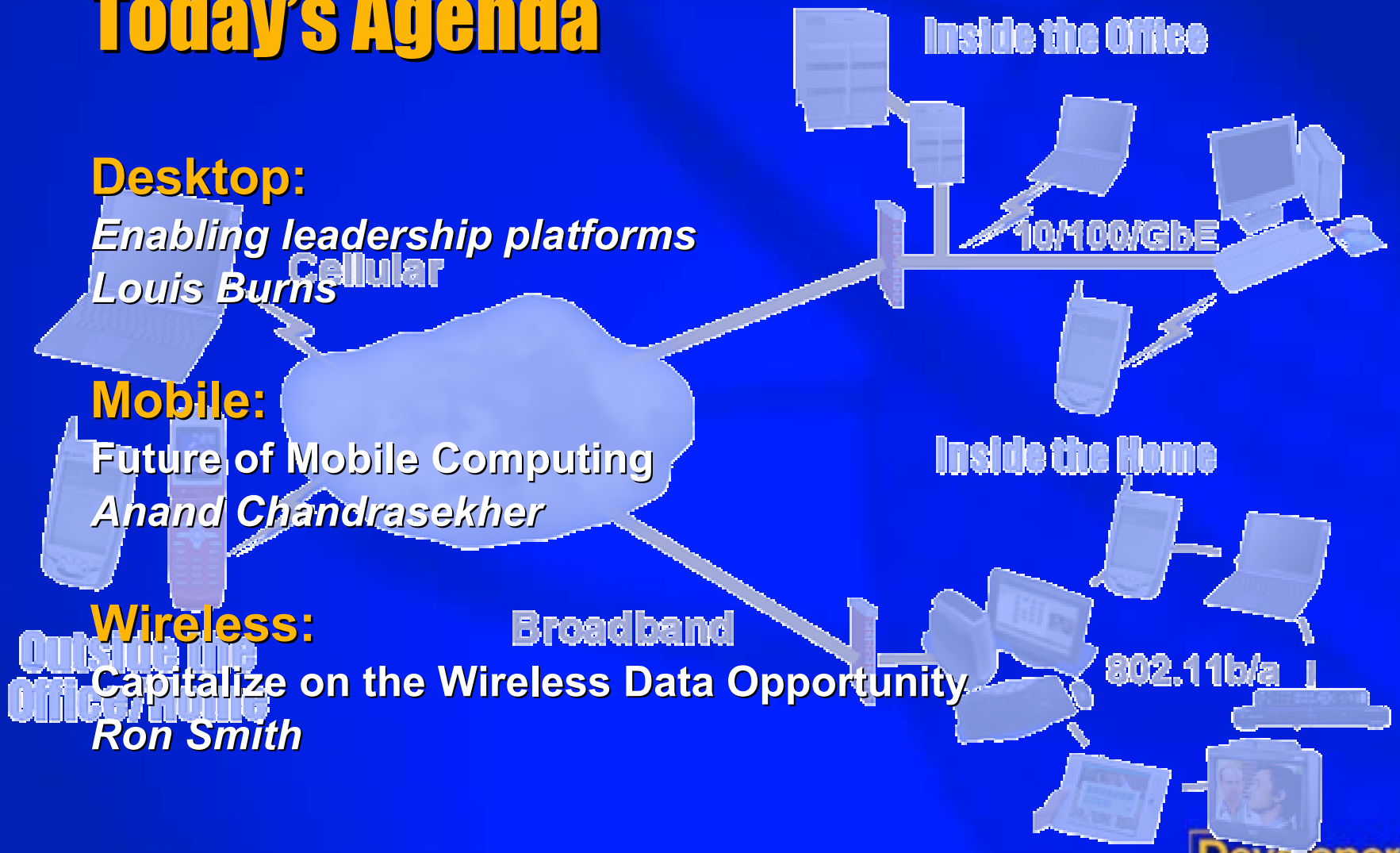
*Enabling leadership platforms*
*Louis Burns*

**Mobile:**

Future of Mobile Computing
*Anand Chandrasekher*

**Wireless:**

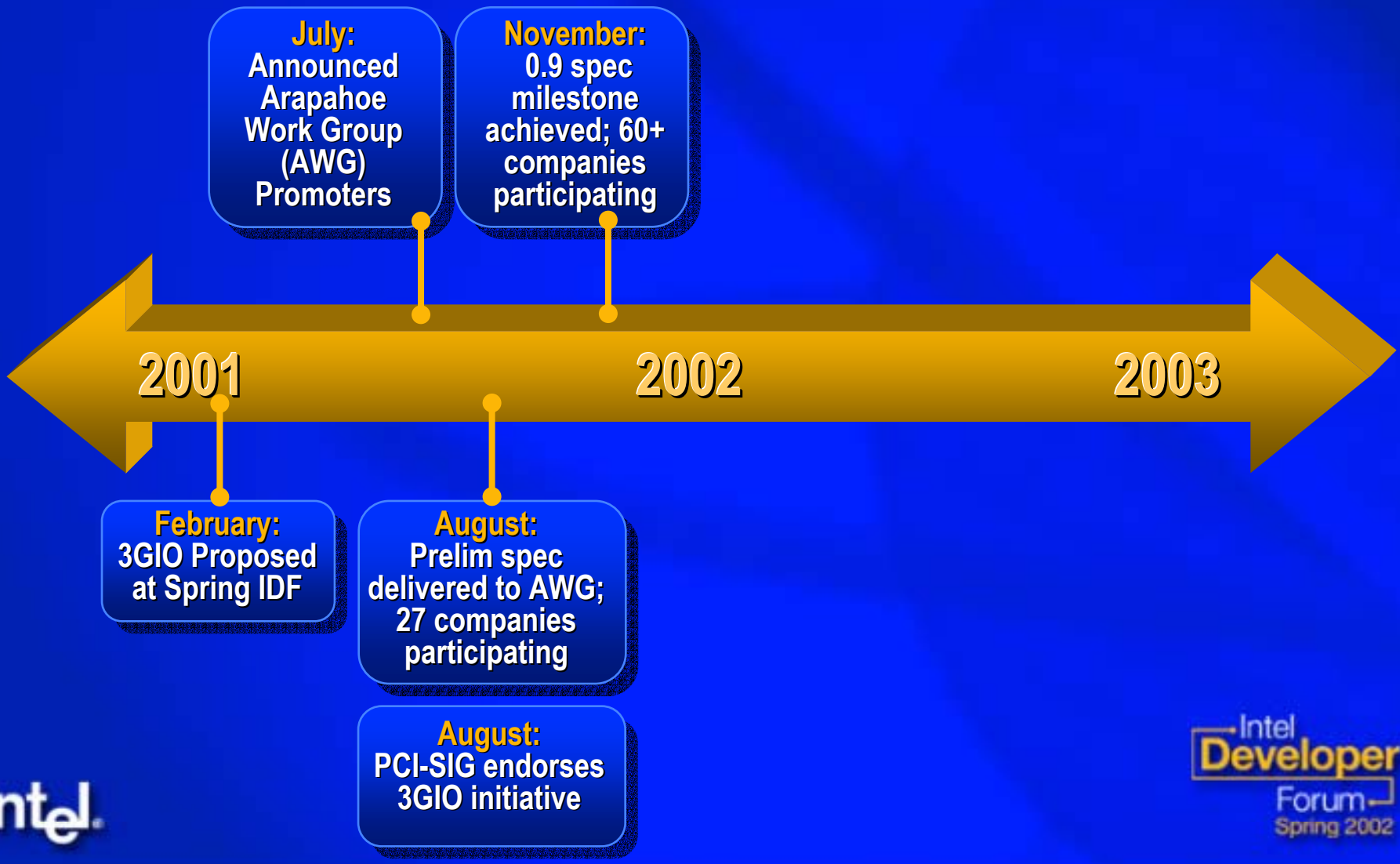
Capitalize on the Wireless Data Opportunity
*Ron Smith*



# Agenda

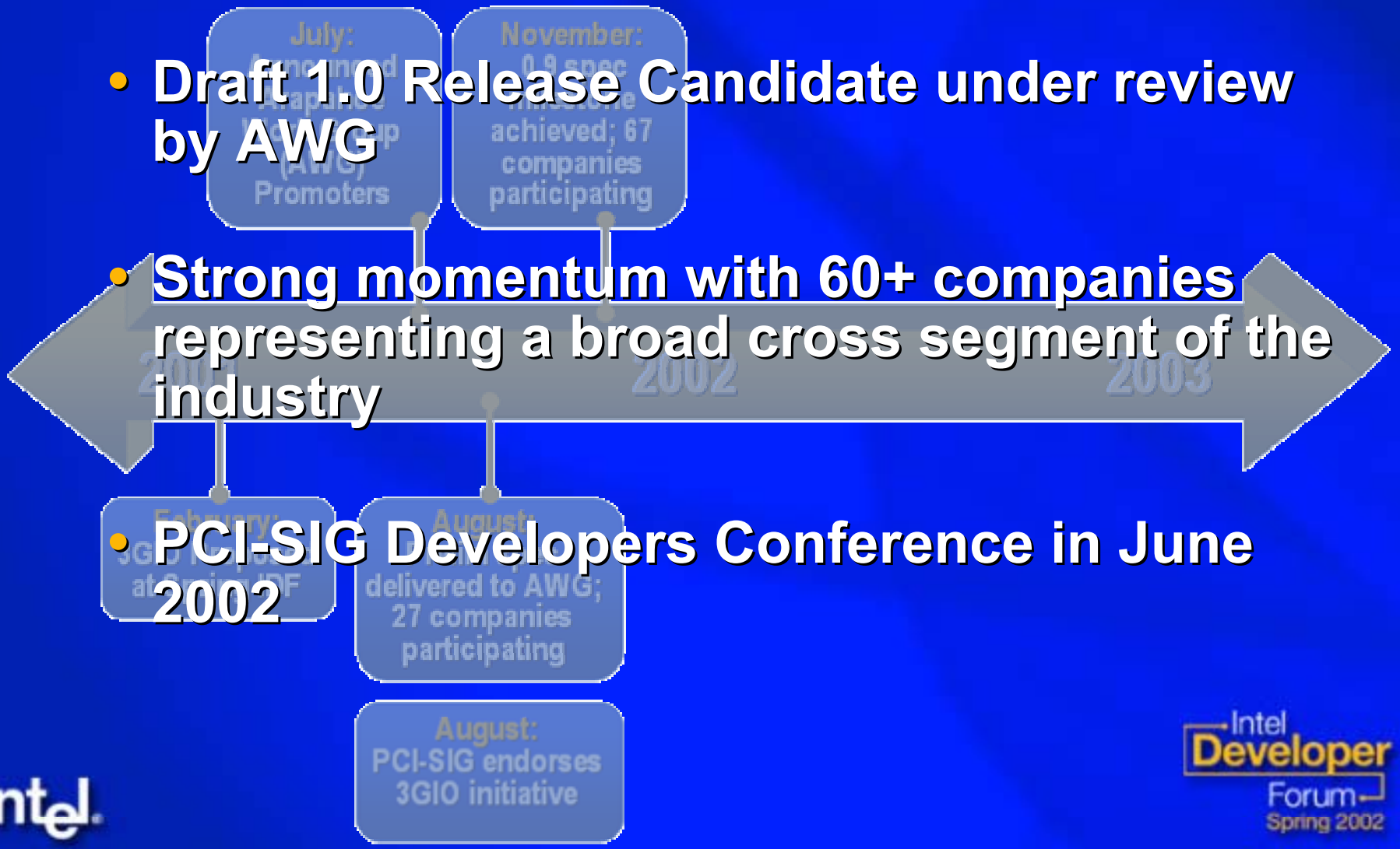
- 3GIO
- ’03 Platform Directions
- Form Factors
- Beyond the Extended PC

# 3GIO – Looking Back

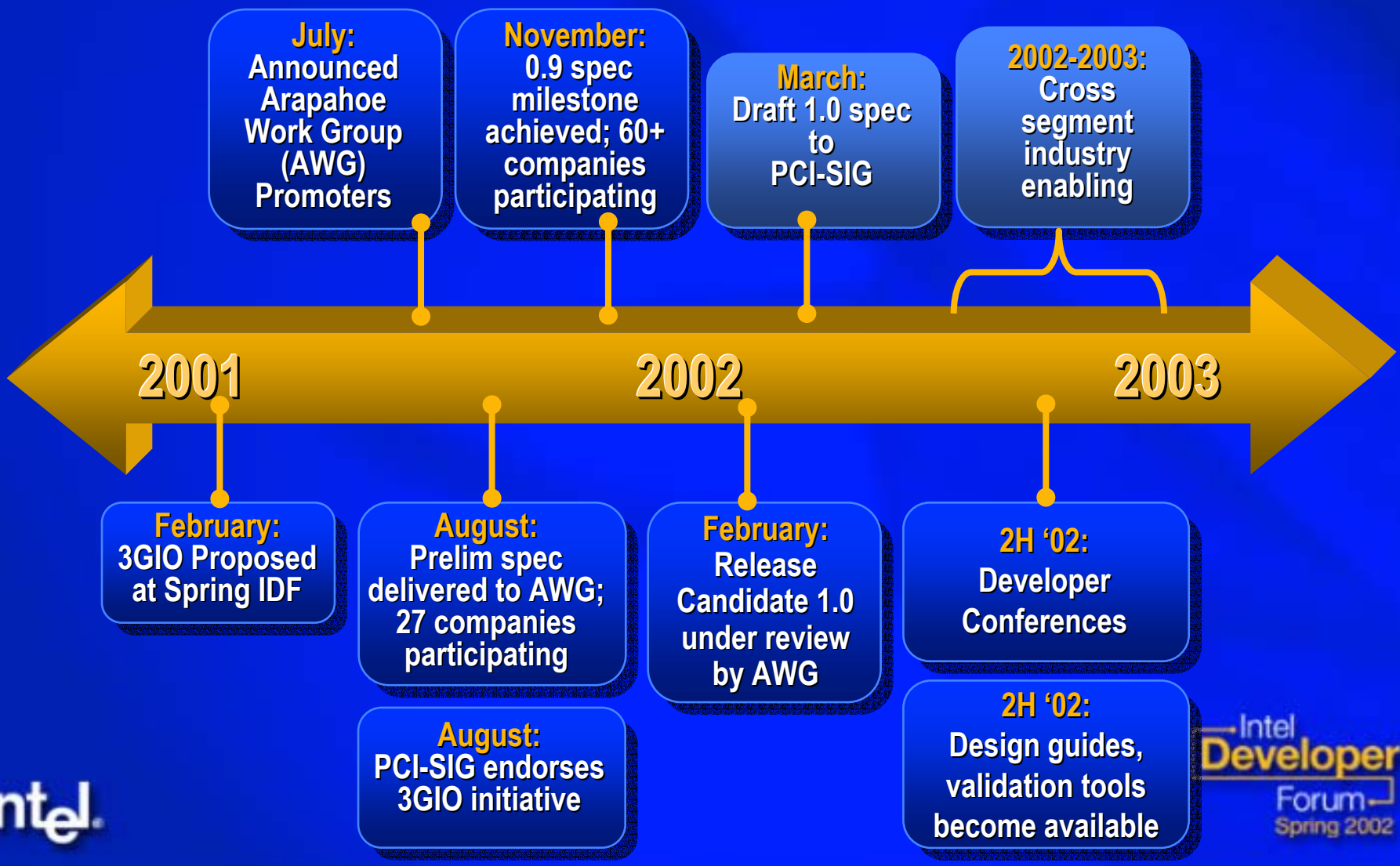


# 3GIO – Progress To date

- Draft 1.0 Release Candidate under review by AWG
- Strong momentum with 60+ companies representing a broad cross segment of the industry
- PCI-SIG Developers Conference in June 2002



# 3GIO –Next Steps




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Intel will support **3GIO architecture** across a **wide range** of product **segments** with initial silicon building blocks in **2H 2003**

# 2003 Platform Directions

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# Prescott – Intel's Next Major Micro-Architecture

Demo

- Code name for Intel's next generation Desktop processor
  - Introduction in 2H'03
  - Manufactured using Intel's 90nm process

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- Based upon Intel® NetBurst™ Micro-architecture
  - Additional micro-architectural enhancements

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- Code name for Intel's next generation Desktop processor
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  - Manufactured using Intel's 90nm process
- Based upon Intel® NetBurst™ Micro-architecture
  - Additional micro-architectural enhancements
- Delivers Hyper-Threading to Desktops
- Foundation for enabling "Anytime Anywhere"

# Lecta:
# Intel's 2003 Concept Platform



**Key Technology Ingredients**

Pentium® 4 Processor
Integrated / Discrete Graphics
Wireless – 802.11a/b
GbE
USB2.0
Serial ATA

*Spring 2002 IDF*

**Preliminary Platform Vision Guide**

*Fall 2002 IDF*

**Reference Platform**

*Second Half 2003*

**'03 Platform Launch**

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# Next Generation Form Factor Initiative

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# Challenges . . .

## Deliver Uncompromised Performance

**Challenge #1 : Expand Thermal Envelope**

**Challenge #2 : Improved Acoustics**

**Challenge #3 : Manage EMI**

**Challenge #4 : Cost-effective Power Supply**

# Many Technology Concepts . . .



## Akeru

TCO / Screwless Chassis



## Beacon Rock

Improved Acoustics And Fan Mounting And Placement



## Taishan

Reduced Acoustics 23 dBA



## Concept PC 2001

Relocated I/O Devices with USB 2.0

Heat Pipe Design Techniques



## Hailey

Aligned Airflow Balancing Mechanical, Thermal And Acoustics High Volume Manufacturability

# . . . Lots of Learning!

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# Significant Industry Efforts



Compaq



Dell



IBM



HP



Procide





Fujitsu




NEC




Hitachi




Sotec

***A Variety of Custom SFF Designs Today***

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* other brands & names may be claimed as the property of others

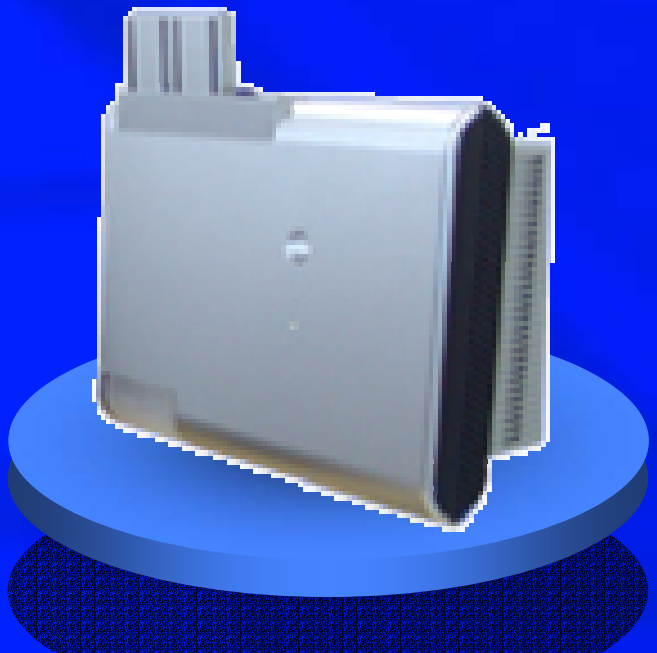
# Announcing:
# Two New Form Factor Programs

## *Tidewater* Program



*Extending microATX*
*(evolutionary)*

## *Big Water* Program



*Entirely New*
*(revolutionary)*

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# Tidewater Program – Summary

- Scaling microATX system boards into smaller sizes
- New ingredient definitions for power supply, thermal solution, and chassis
- Evolutionary path extending the range of performance and size



***Design Guide And Reference Systems Available In April '02***

# Big Water Program – Summary

- New form factor alternative with all new building blocks based on 3GIO technology
- Early information available at Fall 2002 IDF



*Specification In 2003 – For Products Launching In 2004*

# Beyond The Extended PC





# Extended PC Evolution



*Lean Forward*

Local

*2001* *Now* *2003*

# Extended PC Evolution



Lean Forward



Lean Forward
Lean Back

Local

2001 Now 2003

# Extended PC Evolution



*Lean Forward*



*Lean Forward*
*Lean Back*




*Lean Forward*
*Lean Back*

Local

Local + Remote

*2001*

*Now*

*2003*

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# Digital Convergence at Home

## Broadband




PC Internet World
2ft "Lean Forward"
Apps/Services

# Digital Convergence at Home

## Broadband

e-Business Services

Internet Entertainment Services




**PC Internet World**
2ft "Lean Forward" Apps/Services

## Digital TV

Broadcast Entertainment Services



**CE Broadcast World**
10 Ft "Lean Back" Apps/Services

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# Digital Convergence at Home

## Broadband

## Digital TV

e-Business Services

Internet Entertainment Services




Broadcast Entertainment Services



PC Internet World
2ft "Lean Forward" Apps/Services

CE Broadcast World
10 Ft "Lean Back" Apps/Services

**2ft/10ft Usage Converge with UPnP 802.11a Home Net**

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# Accelerating the Digital Convergence

- Interoperability
- Industry Standards
- Common Building Blocks

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- Interoperability
- Industry Standards
- Common Building Blocks

*Intel is Working with key Industry players establishing key architectural framework and implementation guidelines…*

# Summary

- Made good progress on 3GIO
- Intel will continue to lead in performance and capabilities in the desktop
- No compromise standard small Form Factors
- Digital Convergence in the Home

# Summary

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